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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/057,705

01/24/2002

Liang He

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9089

7590

12/28/2004

EXAMINER

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ART UNIT

PAPER NUMBER

2655

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/057,705	Applicant(s) HE ET AL.	
	Examiner Daniel D Abebe	Art Unit 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 19-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 19-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ladd et al. (6,269,336) in view of Albayrak et al. (6,662,163) and Kanevsky et al. (6,615,171).

As to claim 1, Ladd teaches a voice browsing system (Fig.1, 100) comprising,
A client module (102)
A "gateway module" (104); and
A document server (106); where the client module receives speech that is transmitted to the gateway module ; and where the gateway module (voice browser, Fig.3, 250) receives a markup document from markup language server (251) interpret the markup language (Fig.4, 250) generates grammar for the speech recognition (Fig.5c) and communicates with the client device (Fig.3, 204), through a voice response unit (232). According to Ladd the interpreter is located at the server. Albayrak however, teaches a client –server voice browsing system, where the client module includes interpreter for interpreting and presenting voice pages sent from the server (Fig.2; abstract; Col.3, lines 5-8). It would have been obvious to one of ordinary skill in the art to modify Ladd's art by placing the interpreter in the client's module, in view of Albayrak,

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first as an alternative arrangement and second for the purpose of relieving the server the task of interpreting the many documents that are queried by multiple clients.

Ladd also doesn't teach where the speech signal transmitted from the client to the server comprises feature vectors. However, client-server DSR (distributed speech recognition) systems are well known in the art. Kanevsky, for ex, teaches a system comprising a client module (120) having a front-end processor and a display, where the client module captures and extracts feature vectors and transmit them to a server for recognition (Col.2, lines 20-32)

Therefore, it would have been obvious to one of ordinary skill in the art to process the speech signal at the client module, in view of Kanevsky, for the purpose of "improving the recognition accuracy and reducing or eliminating a loss of data by processing the speech signal at the client's end".

As to claims 2-3, Kanevsky teaches where the client module includes and speech processor including a feature extractor where segmenting the speech frame is inherent (120).

As to claim 4, Official Notice is taken that obtaining feature vectors from cepstral values by calculating the MFCC and vector quantization (compression) are well known in the art of speech processing/recognition and would be obvious in the client module of Kanevsky, for obtaining the features vectors.

As to claim 5, Kanevsky teaches processing a request, receiving data and transmitting speech feature data (Fig.1, 99, 150).

As to claim 6, Albayrak teaches an interpreter (162) for interpreting markup documents.

As to claims 7-11, see Figs. 3-4, in Ladd's art.

As to claims 12-14, see Fig.3, # 234, Fig.5c and synchronization between the client device and the server in Ladd and Thrifty art is inherent.

Claims 19-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albayrak et al. (6,662,163) in view of Kanevsky et al. (6,615,171).

As to claim 19, Albayrak teaches a method comprising:

A client unit (110) performing speech processing (164);

Sending the result of the speech processing to a server;

A server comprising document translator (332) for translating a mark up language document into voiceXML page and grammar generator where the grammar (270) is sent to the client device;

a system monitoring procedure (240) that stores information about speech recognition events;

The client receiving multiple events from the server according to the result of the recognition, where the event include presenting a current document or receiving a new one or prompting the user (Fig.5) and;

Presenting (through displaying or playing) the event to the user (Fig.5; Col.3, lines 13-15; Col.4, lines 41-67).

The claims recite where the recognition is distributed between the client unit and the server and it is noted that Albayrak teach where all the recognition is performed at

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the client unit. however a DSR system where feature vectors are extracted at a client unit for transmission to a server is taught by Kanevsky as explained above, and the motivation for having the DSR in Albayrak is obvious in light of Kanevsky teaching which is to avoid the required devices and memories for performing speech recognition, there by reducing the size and cost of the client's unit.

As to claim 20, Kanevsky teaches where the feature vectors are compressed and encrypted (Fig.1).

Claims 21-30 are analogous to claims 19 and 20 and are rejected for the foregoing reasons.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brown (6,604,075) teaches the gateway (100) as recited in the present claim and client device (Fig.1)

Response to Arguments

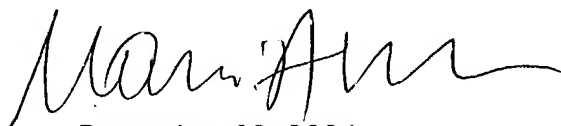
Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel D Abebe whose telephone number is 703-308-5543. The examiner can normally be reached on monday-friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Abebe Primary Examiner A.U. 2655

A handwritten signature in black ink, appearing to read 'Daniel Abebe', with a stylized flourish at the end.

December 23, 2004